8. MIXED LOW-LEVEL WASTE

8.1 INTRODUCTION

This chapter reports the estimated inventories and generation rates of mixed low-level waste (MLLW) from DOE-site and commercial-site operations. Mixed wastes are radioactive wastes that are also considered hazardous. MLLWs are mixed wastes which, radiologically, are low level, as defined in Chapter 4.

Other types of radioactive wastes may also be mixed. All high-level wastes (HLWs) are regarded as mixed and are discussed in Chapter 2. Mixed transuranic wastes (TRUWs) are not included in this chapter, but they are addressed in the TRUW inventories and projections reported in Chapter 3.

The radioactive components of mixed wastes are subject to the Atomic Energy Act (AEA), as amended,[1] which, for government sources, is administered by DOE, and, for commercial sources, by the U.S. Nuclear Regulatory Commission (NRC) (unless a state has obtained agreement-state status). As defined in this report, the hazardous components of mixed wastes are subject to either of two federal statutes that are administered by the U.S. Environmental Protection Agency (EPA) (unless a state has obtained authorization status): the Resource Conservation and Recovery Act (RCRA), as amended,[2] and the Toxic Substances Control Act (TSCA).[3] Table 8.1 (based on ref. 4) lists those states and territories designated by EPA to have mixed waste authorization. The management of RCRA- and TSCA-regulated mixed wastes are subject to the regulations of EPA[5,6] and NRC (or the authorized and agreement states), or DOE.

8.2 SCOPE

This chapter summarizes the quantities (inventory and generation) and associated characteristics of MLLW from both DOE-site and commercial-site operations. The DOE MLLWs include MLLW for which the hazardous component is subject to regulation under either RCRA or TSCA (PCBs only). These are hereafter referred to as either RCRA MLLW or TSCA MLLW, respectively. In this report, TSCA-regulated MLLWs pertain only to PCB wastes. Asbestos wastes are excluded in this chapter, but are included in the DOE LLW data of Chapter 4. DOE MLLWs which are subject to regulation under both RCRA and TSCA (PCBs only) are considered RCRA MLLW.

Relative to the previous issue of this report (DOE/RW-0006, Rev. 12), a key change of scope is the exclusion of seven sites from this chapter: (1) Fernald Environmental Management Project (FEMP), (2) Paducah Gaseous Diffusion Plant (PAD), (3) Portsmouth Gaseous Diffusion Plant (PORTS), (4) Reactive Metals, Inc., Extrusion Plant (RMI), (5) Colonie Interim Storage Site (CISS), (6) Battelle Columbus Laboratories Decommissioning Project (BCLDP), and (7) the General Atomics Site (GA). The MLLW at these sites are addressed exclusively in Chapter 6 ("Environmental Restoration Program") of this report. This change in scope accounts for most of the differences in the total nationwide inventory of DOE RCRA MLLW from that of the previous issue of this report.

A significant volume of MLLW is associated with environmental restoration activities. For example, remediation of former landfills used for the disposal of radioactively contaminated materials can result in large quantities of RCRA MLLW. MLLWs resulting from such activities are provided in Chapter 6 within pertinent tables. The environmental restoration program is a very dynamic program in which (a) wastes are currently being generated by ongoing remedial action activities and (b) certain stored wastes are being treated either on- or off-site before their disposal. As such, waste volumes can change significantly in very short periods of time.

For commercial MLLW, this chapter presents a summary of the cumulative stored inventories and generation documented for a baseline CY (1990) in a national profile study [NUREG/CR-5938 (ref. 7)] made for the NRC and EPA. The wastes reported in that study are grouped by facility categories and by major hazardous waste classifications.

Unless otherwise noted, the inventories and projections given for MLLW in this chapter are separate

from those reported for strictly radioactive LLW in Chapter 4. Inventories of MLLW currently stored at DOE sites are being thoroughly characterized. As a result, the waste at some sites could require future reclassification, thereby causing significant changes in current inventory data that are currently reported.

8.3 DOE MLLW DATA SOURCES

DOE MLLW information reported in this chapter is based on DOE site submittals recently provided to the DOE/EM Technical Information Collection Database and cited in ref. 8.

8.4 DOE MLLW

Figure 8.1 summarizes the estimated combined volume inventories of RCRA and TSCA MLLW for major sites in the DOE complex. A corresponding illustration of the estimated annual volume generation is shown in Fig. 8.2. For comparison, Table 8.2 summarizes estimated nationwide volume inventory and annual volume generation of DOE MLLW (RCRA and PCB) and commercial MLLW.

Approximately 76,200 m^3 of RCRA and RCRA PCB MLLW are in storage throughout the DOE complex, and an estimated 70,400 m^3 are anticipated to be generated over the next 10 years. Table 8.3 summarizes the RCRA and RCRA PCB distribution of inventory and generation across the DOE sites. More than 95% of the volume inventory is stored at 7 sites: (ETTP, Hanford, INEEL, ORNL, RFETS, SRS, and Y-12). Volume inventories of non-RCRA PCB MLLW at DOE sites are reported in Table 8.4. The Oak Ridge ETTP site has over 85% of this volume inventory.

Tables 8.6 and 8.7 summarize the distribution of MLLW volume inventories and generation for the DOE sites according to various physical form categories, which are defined in Table 8.5 (based on ref. 9). The physical forms described define the treatability group matrix parameter categories that are used to characterize DOE MLLW. Table 8.6 provides a physical form breakdown of site volume inventory and generation for RCRA and RCRA PCB MLLW. A corresponding breakdown for non-RCRA PCB MLLW is provided in Table 8.7. The DOE complex-wide aggregate of the site distributions is provided in Table 8.8 for RCRA and RCRA PCB MLLW and in Table 8.9 for non-RCRA MLLW. Complex-wide, most of the RCRA inventory consists of inorganic homogeneous solids, debris (inorganic, organic, heterogeneous), aqueous slurries/liquids, and soil/gravel for RCRA MLLW and soil/gravel and inorganic debris for non-RCRA MLLW.

8.5 COMMERCIAL MLLW

In 1992, the NRC and EPA published a survey study to compile a national profile of the volumes, characteristics, and treatability of commercially generated MLLW. Such a profile was designed to provide the following:

- states and compacts with information to assist in planning and developing adequate disposal capacity for low-level radioactive waste, including MLLW, as mandated by the Low-Level Radioactive Waste Policy Amendments Act;[10]
- private developers with a clearer idea of the characteristics and volumes of mixed waste and the technical capability and capacity needed to treat this waste; and
- a reliable national data base of the volumes, characteristics, and treatability of commercial mixed waste.

In addition, the data were collected to provide a basis for possible federal actions that would effectively manage and regulate the treatment and disposal of mixed waste. Results from this investigation are documented in ref. 7 and summarized in this report.

The study identified the types and volumes of MLLW generated from five groups of facilities: nuclear utilities, medical facilities, academic institutions, industrial facilities, and NRC-licensed government facilities. The study selected a random sample of 1323 facilities from a total target population of 2936 facilities. Data from the 1016 completed mixed waste survey questionnaires (77% response rate) received and the use of appropriate weighting factors indicate that approximately 3950 m^3 of MLLW—of which 72% was liquid scintillation fluids—were generated in the United States in 1990.

8.6 REFERENCES

1. U.S. Congress, Atomic Energy Act of 1954, Pub. L. 83-703, Aug. 15, 1954.

2. U.S. Congress, Resource Conservation and Recovery Act of 1976, Pub. L. 94-580, Oct. 21, 1976, as amended by the Hazardous and Solid Waste Amendments Acts of 1984, Pub. L. 98-616, Nov. 9, 1984.

3. U.S. Congress, Toxic Substances Control Act of 1976, Pub. L. 94-469, Oct. 11, 1976.

4. Wayne E. Roepe, U.S. Environmental Protection Agency, Arlington, Virginia, correspondence to Steve Storch, IDB Program, ORNL, Oak Ridge, Tennessee, dated Feb. 26, 1997, containing the updated respective EPA mixed waste authorization statuses for states and U.S. territories as of Dec. 31, 1996.

5. U.S. Environmental Protection Agency, "Subchapter I—Solid Wastes (continued)," *Code of Federal Regulations*, 40 CFR Parts 260–299 (July 1, 1996).

6. U.S. Environmental Protection Agency, "Subchapter R—Toxic Substances Control Act," *Code of Federal Regulations*, 40 CFR Parts 700–789 (July 1, 1996).

7. J. A. Klein et al., *National Profile on Commercial Generated Low-Level Radioactive Mixed Waste*, prepared by Oak Ridge National Laboratory, Oak Ridge, Tennessee, for U.S. Nuclear Regulatory Commission and U.S. Environmental Protection Agency, NUREG/CR-5938, ORNL-6731 (December 1992).

8. U.S. Department of Energy, Office of Environmental Restoration, Office of Waste Management, *Technical Information Collection Database*, updated through Oct. 30, 1997.

9. U.S. Department of Energy, Office of Waste Management, *DOE Waste Treatability Group Guidance*, Washington, D.C., DOE/LLW-217, Rev. 0 (January 1995).

10. U.S. Congress, Low-Level Radioactive Waste Policy Amendments Act of 1985, Pub. L., 99-240, Jan. 15, 1986.

Table 8.1. Forty states and territories with EPA mixed waste authorization as of the end of CY 1996[a]

State or territory	Effective date	State or territory	Effective date
Alabama	05/17/93	Montana	03/21/94
Arizona	01/22/93	Nebraska	12/03/88
Arkansas	05/29/90	Nevada	06/29/92
California	08/01/92	New Hampshire	01/13/95
Colorado	11/07/86	New Mexico	07/25/90
Connecticut	12/31/90	New York	05/07/90
Delaware	10/07/96	North Carolina	11/21/89
Florida	02/12/91	North Dakota	08/24/90
Georgia	09/26/88	Ohio	06/30/89
Guam	10/10/89	Oklahoma	11/27/90
Idaho	04/09/90	Oregon	05/29/90
Illinois	04/30/90	South Carolina	09/13/87
Indiana	09/30/91	South Dakota	06/17/91
Kansas	06/25/90	Tennessee	08/11/87
Kentucky	12/19/88	Texas	03/15/90
Louisiana	10/25/91	Utah	03/07/89
Michigan	01/23/90	Vermont	08/06/93
Minnesota	06/23/89	Washington	11/23/87
Mississippi	05/28/91	Wisconsin	04/24/92
Missouri	03/12/93	Wyoming	10/18/95

[a]Based on ref. 4. Information as of December 31, 1996.

Table 8.2. Summary of estimated total MLLW inventories and FY 1996 generation

Category	Volume, m^3	
	Total inventory	FY 1996 generation[a]
DOE sites		
RCRA and RCRA PCB MLLW	71,710[b]	608
Non-RCRA PCB MLLW	4,530[b]	73
DOE MLLW total	76,240	681
Major commercial sites[c]	2,116	3,949
Other commercial sites[d]	31,014	0

[a]Except where indicated.

[b]Based on ref. 8. The currentness of these data for the various DOE sites ranges from September 1995 to July 1997.

[c]Reported for CY 1990.

[d]Wastes from commercial- and government-sponsored (DOE, EPA, DOD) activities that are disposed of at other commercially operated disposal facilities.

Table 8.3. Volume (m^3) inventory and generation of DOE RCRA and RCRA PCB MLLW, by site[a]

Site(s)	Inventory[b]	FY generation			
		Actual 1996	Projected		
			1997	1998–2006	2007–2030
Ames	0.00	0.00	c	c	c
ANL–E	50.77	c	c	c	c
ANL–W	390.18	c	c	c	c
BNL	3.93	1.73	0.30	0.92	2.10
ETEC	39.39	8.80	1.47	8.95	0.00
ETTP	23,237.18	d	d	d	d
Hanford	8,017.76	318.19	616.47	12,771.03	47,684.95
INEEL	846.28	c	c	c	c
ITRI	0.00	c	c	c	c
LANL	765.10	53.87	83.35	2,420.76	474.86
LBNL	6.67	1.04	c	c	c
LEHR	1.70	0.00	0.00	0.00	0.00
LLNL	493.43	115.70	188.82	1,745.29	3,796.80
Mound	37.00	0.00	0.00	5.36	0.00
MURR	1.40	0.27	c	c	c
Naval laboratories[e,f]					
BAPL	14.17	0.46	1.07	9.61	25.63
KAPL	1.75	2.84	7.84	70.54	188.11
KESS	3.59	8.27	7.96	39.71	80.04
KWIN	0.25	0.24	6.34	10.02	0.00
Naval shipyards[e,g]					
NNS	1.12	0.66	1.80	16.20	43.20
PHNS	3.39	2.00	0.89	8.05	21.46
PNS	0.81	0.01	0.09	0.81	2.16
PSNS	42.86	1.74	4.54	40.82	108.86
NTS	24.85	c	c	4.80	c
ORNL	2,843.13	d	d	d	d
PANT	147.35	27.86	23.01	326.40	63.49
PPPL	0.00	0.30	0.90	19.70	12.00
RFETS	19,730.02	c	179.00	47,050.00	13,873.52
SNL/CA	c	c	c	7.20	0.80
SNL/NM	c	c	c	c	c
SRS[h]	7,717.12	61.39	336.20	4,386.18	c
WVDP	26.60	2.24	3.12	0.00	0.00
Y-12	7,262.01	d	d	d	d
Total	71,709.82	607.61	1,463.17	68,942.36	66,377.99

[a]Based on ref. 8.

[b]The currentness of the inventory data for the various sites ranges from September 1995 to July 1997.

[c]Not reported.

[d]Generation data for ETTP, ORNL, and Y-12 were reported as combined values for the entire Oak Ridge Reservation (ORR). The following volumes were not distributed according to RCRA and non-RCRA PCB MLLW: 880.00 m^3 (FY 1996); 1,054.00 m^3 (FY 1997); 9,505.00 m^3 (FY 1998–2006); and 28,458.00 m^3 (FY 2007–2030).

[e]DOE Office of Naval Reactors (NE-60) sites.

[f]Naval laboratory contributions include Bettis Atomic Power Laboratory (BAPL), Knolls Atomic Power Laboratory (KAPL)–Schenectady, Knolls Kesselring Site (KESS), and Knolls Windsor Site (KWIN).

[g]Naval shipyard contributions include Norfolk Naval Shipyard (NNS), Pearl Harbor Naval Shipyard (PHNS), Portsmouth Naval Shipyard (PNS), and Puget Sound Naval Shipyard (PSNS).

[h]SRS generation for the 1998–2006 period account for only that from 1998–2001.

Table 8.4. Volume (m^3) inventory and generation of DOE non-RCRA PCB MLLW, by site[a]

Site(s)	Inventory[b]	FY generation			
		Actual 1996	Projected		
			1997	1998–2006	2007–2030
ANL–E	70.00	70.00	0.63	0.63	0.63
BNL	0.28	0.00	0.40	0.10	0.10
ETTP	4,000.98	c	c	c	c
Hanford	102.46	d	d	d	d
Mound	0.40	0.00	0.00	0.00	0.00
Naval laboratories[e,f]					
BAPL	7.35	0.00	6.76	59.80	24.00
KAPL	0.81	0.81	0.90	8.10	21.60
KESS	0.00	1.45	1.45	6.85	3.30
KWIN	0.10	0.00	3.90	6.00	0.00
Naval shipyards[e,g]					
NNS	0.07	0.14	0.62	0.20	0.53
PHNS	0.02	0.02	0.74	3.33	8.88
PSNS	10.76	0.18	0.18	1.58	4.22
ORNL	8.54	c	c	c	c
SNL/NM	e	e	e	e	e
SRS	2.80	0.20	1.00	d	d
Y-12	325.32	c	c	c	c
Total	4,529.89	72.80	16.58	86.59	63.26

[a]Based on ref. 8.

[b]The currentness of the inventory data for the various sites ranges from September 1995 to July 1997.

[c]Generation data for ETTP, ORNL, and Y-12 were reported as combined values for the entire Oak Ridge Reservation (ORR). The following volumes were not distributed according to RCRA and non-RCRA PCB MLLW: 880.00 m^3 (FY 1996); 1,054.00 m^3 (FY 1997); 9,505.00 m^3 (FY 1998–2006); and 28,458.00 m^3 (FY 2007–2030).

[d]Not reported.

[e]DOE Office of Naval Reactors (NE-60) sites.

[f]Naval laboratory contributions include Bettis Atomic Power Laboratory (BAPL), Knolls Atomic Power Laboratory (KAPL)–Schenectady, Knolls Kesselring Site (KESS), and Knolls Windsor Site (KWIN).

[g]Naval shipyard contributions include Norfolk Naval Shipyard (NNS), Pearl Harbor Naval Shipyard (PHNS), and Puget Sound Naval Shipyard (PSNS).

Table 8.5. Treatability group matrix parameter categories used to characterize DOE MLLW[a]

Matrix parameter category (code)	Description
	Liquids[b]
Liquids (L0000)	Liquids and slurries which cannot be categorized as aqueous liquids/slurries or organic liquids because it is not known if the total organic carbon (TOC) level is less or greater than 1%
Aqueous liquids/slurries (L1000)	Liquids and slurries containing less than 1% TOC
Organic liquids (L2000)	Liquids and slurries containing ≥1% TOC
	Solids[c]
Solids (S0000)	Wastes with physically solid matrices for which insufficient characterization information exists to enable categorizing as a homogeneous solid, soil/gravel, or debris
Homogeneous solids (S3000)	Wastes that are at least 50 vol % homogeneous solids, but: • are insufficiently characterized to enable categorization as either inorganic or organic homogeneous solids, or • do not meet the criteria for categorization as either inorganic or organic homogeneous solids
Inorganic homogeneous solids (S3100)	Wastes that are at least 50 vol % inorganic homogeneous solids. Homogeneous solids are defined as solid waste materials, excluding soil/gravel, that do not meet the U.S. Environmental Protection Agency (EPA) land disposal restrictions (LDRs) criteria for classification as debris. Inorganic homogeneous solids are further defined as those with sufficient inorganic solids content such that a minimum of approximately 20 wt % would remain as residue (i.e., ash/solids) following incineration
Organic homogeneous solids (S3200)	Wastes that are at least 50 vol % organic homogeneous solids. Homogeneous solids are defined as solid waste materials, excluding soil/gravel, that do not meet the EPA LDR criteria for classification as debris. Organic homogeneous solids are further defined as those with a base structure that is primarily organic such that a maximum of approximately 20 wt % would remain as residue (i.e., ash/solids) following incineration
Soil/gravel (S4000)	Wastes that are at least 50 vol % soil, including sand and silt or rock and gravel, that do not meet EPA LDR criteria for classification as debris
Debris (S5000)	Wastes that are at least 50 vol % materials that meet the EPA LDR criteria for classification as debris but lack adequate characterization information to enable categorizing as inorganic, organic, or heterogeneous debris
Inorganic debris (S5100)	Wastes that are at least 80 vol % inorganic materials that meet the EPA LDR criteria for classification as debris. Examples include scrap metal, concrete, glass, and brick
Organic debris (S5300)	Wastes that are at least 80 vol % organic materials that meet the EPA LDR criteria for classification as debris. Examples include plastic, rubber, wood, paper, cloth, and biological materials
Heterogeneous debris (S5400)	Wastes that are at least 50 vol % debris materials that meet the EPA LDR criteria for classification as debris but are not dominant (i.e., at least 80 vol %) in either inorganic or organic debris materials

Table 8.5 (continued)

Matrix parameter category (code)	Description
	Specific waste forms[d]

Lab packs (X6000)	Wastes packaged in lab pack configurations. A lab pack configuration is defined as two or more waste containers packaged within a larger outer container. Typically, the inner containers are surrounded by absorbent materials. If present, the absorbents can be homogeneous solids or debris materials
Reactive metals (X7500)	Reactive metal wastes that meet the criteria for classification as water-reactive or ignitable-reactive per the Third Third LDR rule (55 FR 22545 and 22553). Typically, this waste is sodium metal or sodium metal alloys, but can also include particulate fines of aluminum, uranium, zirconium, or other pyrophoric materials
Explosives/propellants (X7600)	Wastes consisting of substances which undergo rapid chemical transformations that produce large amounts of gases and heat. The gases rapidly expand at velocities exceeding the speed of sound (due to the heat of reaction), which creates a shock wave and explosion. Waste that meets this definition is categorized as an explosive/propellant regardless of the specific physical form
Compressed gases/aerosols (X7700)	Wastes consisting of pressurized gas cylinders or aerosol cans
Elemental mercury (X7100)	Wastes that are bulk, pourable liquid mercury. The liquid mercury may be packaged in a lab pack configuration
Elemental hazardous metals (X7200)	Wastes that are at least 50 vol % solid, bulk, elemental hazardous metals that meet the EPA LDR size criteria for classification as debris. Typical examples of solid elemental hazardous metals are lead and cadmium
Beryllium dust (X7300)	Wastes that are subject to the metal recovery treatment standard for beryllium dust as specified in the Third Third LDR rule (55 FR 22545)
Batteries (X7400)	Wastes consisting of lead acid, cadmium, or other batteries. The batteries may be packaged with absorbent materials
Unknown/other matrix (U9999)	Wastes for which insufficient characterization information is known to enable categorization as a liquid or solid or as one of the specific waste forms
	Final waste forms[e]
Final waste forms (Z0000)	Final waste forms other than immobilized forms and decontaminated solids
Immobilized forms (Z1000)	Wastes that have been immobilized. These include wastes considered to be either micro- or macro-encapsulated
Decontaminated solids (Z2000)	Waste that has been decontaminated and is ready for disposal or recycling

[a]Based on ref. 9.

[b]This category addresses wastes that are liquid, including slurries, and are packaged in bulk, free form (i.e., excludes lab packs). Slurries are defined as liquids with a total suspended/settled solids (TSS) content of $\geq$1% and $\leq$30%.

[c]This category addresses waste with physically solid matrices, including sludges. Sludges are defined as having a TSS >30%. Certain waste with physically solid matrices are excluded from this category (see the "specific waste forms" and "final waste forms" categories above).

[d]This category addresses lab packs and other specific waste forms. The other specific waste forms include waste that (a) is inherently hazardous (i.e., the bulk material itself is RCRA hazardous), or (b) presents unique treatment or management concerns.

[e]This category addresses waste that is in final form and meets applicable disposal criteria, including applicable LDR and PCB treatment standards.

Table 8.6. Volume (m^3) inventory and generation of DOE RCRA and RCRA PCB MLLW, by site and physical form[a]

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
Ames	Organic liquids (09/30/95)[c]	L2000	0.00	d	d	d	d
ANL–E	Aqueous liquids/slurries	L1000	3.41	d	d	d	d
	Inorganic homogeneous solids	S3100	1.21	d	d	d	d
	Soil/gravel	S4000	1.03	d	d	d	d
	Inorganic debris	S5100	12.72	d	d	d	d
	Organic debris	S5300	1.26	d	d	d	d
	Lab packs	X6000	2.87	d	d	d	d
	Elemental mercury	X7100	0.02	d	d	d	d
	Elemental hazardous metals	X7200	27.90	d	d	d	d
	Reactive metals	X7500	0.35	d	d	d	d
	ANL–E total (07/09/97)		50.77	d	d	d	d
ANL–W	Aqueous liquids/slurries	L1000	0.42	d	d	d	d
	Inorganic homogeneous solids	S3100	0.21	d	d	d	d
	Inorganic debris	S5100	0.99	d	d	d	d
	Organic debris	S5300	0.15	d	d	d	d
	Heterogeneous debris	S5400	2.83	d	d	d	d
	Elemental mercury	X7100	0.00	d	d	d	d
	Elemental hazardous metals	X7200	0.52	d	d	d	d
	Reactive metals	X7500	385.06	d	d	d	d
	ANL–W total (09/30/95)		390.18	d	d	d	d
BAPL	Aqueous liquids/slurries	L1000	2.10	0.00	0.13	1.13	3.02
	Organic liquids	L2000	2.16	0.01	0.12	1.12	2.98
	Inorganic homogeneous solids	S3100	0.22	0.21	0.17	1.53	4.08
	Organic homogeneous solids	S3200	3.57	0.01	0.34	3.02	8.06
	Soil/gravel	S4000	1.47	0.00	0.00	0.00	0.00
	Inorganic debris	S5100	0.00	0.00	0.01	0.09	0.24
	Heterogeneous debris	S5400	1.92	0.23	0.23	2.11	5.62
	Elemental hazardous metals	X7200	2.73	0.00	0.07	0.61	1.63
	BAPL total (08/08/96)		14.17	0.46	1.07	9.61	25.63
BNL	Organic liquids	L2000	0.91	0.35	0.17	0.17	0.16
	Inorganic homogeneous solids	S3100	0.00	0.00	0.00	0.02	0.01
	Lab packs	X6000	1.12	0.28	0.13	0.72	1.92
	Elemental mercury	X7100	1.45	0.00	d	0.01	0.01
	Elemental hazardous metals	X7200	0.45	1.10	d	d	d
	BNL total (09/30/95)		3.93	1.73	0.30	0.92	2.10
ETEC	Aqueous liquids/slurries	L1000	0.00	0.00	0.00	0.00	0.00
	Organic liquids	L2000	0.15	0.00	0.00	0.00	0.00
	Inorganic homogeneous solids	S3100	5.68	8.70	0.50	2.85	0.00

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
ETEC	Heterogeneous debris	S5400	32.50	0.10	0.95	2.10	0.00
(contd.)	Elemental hazardous metals	X7200	1.06	0.00	0.02	4.00	0.00
	ETEC total (09/30/95)		39.39	8.80	1.47	8.95	0.00
ETTP	Aqueous liquids/slurries	L1000	322.84	e	e	e	e
	Organic liquids	L2000	482.36	e	e	e	e
	Inorganic homogeneous solids	S3100	20,994.13	e	e	e	e
	Organic homogeneous solids	S3200	442.11	e	e	e	e
	Soil/gravel	S4000	283.08	e	e	e	e
	Inorganic debris	S5100	192.05	e	e	e	e
	Organic debris	S5300	153.75	e	e	e	e
	Heterogeneous debris	S5400	172.68	e	e	e	e
	Unknown/other matrix	U9999	45.34	e	e	e	e
	Lab packs	X6000	31.96	e	e	e	e
	Elemental mercury	X7100	2.80	e	e	e	e
	Elemental hazardous metals	X7200	91.15	e	e	e	e
	Beryllium dust	X7300	0.16	e	e	e	e
	Batteries	X7400	17.74	e	e	e	e
	Reactive metals	X7500	0.08	e	e	e	e
	Explosives/propellants	X7600	0.00	e	e	e	e
	Compressed gases/aerosols	X7700	4.94	e	e	e	e
	ETTP total (09/30/96)		23,237.18	e	e	e	e
Hanford	Organic liquids	L2000	1.04	0.21	d	d	d
	Solids S0000		0.62	d	d	d	d
	Homogeneous solids	S3000	20.00	d	4.57	44.38	47.89
	Inorganic homogeneous solids	S3100	3,779.41	56.58	42.44	548.67	4,404.56
	Organic homogeneous solids	S3200	0.00	0.21	d	d	d
	Soil/gravel	S4000	476.38	11.20	29.60	389.10	160.61
	Debris waste	S5000	45.39	23.19	d	d	d
	Inorganic debris	S5100	557.01	30.34	139.75	7,481.58	34,527.35
	Organic debris	S5300	1,690.50	54.60	66.84	778.61	1,972.08
	Heterogeneous debris	S5400	808.78	104.48	271.66	2,768.04	5,009.97
	Unknown/other matrix	U9999	60.15	d	d	d	d
	Lab packs	X6000	291.35	12.93	27.58	184.42	112.44
	Special waste	X7000	1.30	1.82	d	d	d
	Elemental mercury	X7100	1.45	0.42	0.26	0.41	0.67
	Elemental hazardous metals	X7200	235.09	21.81	32.33	234.24	197.58
	Batteries	X7400	1.86	0.42	1.29	3.16	27.04
	Reactive metals	X7500	5.43	d	d	d	d
	Explosives/propellants	X7600	0.00	d	0.15	2.90	22.48
	Immobilized forms	Z1000	42.00	d	d	41.53	1,067.63
	Decontaminated solids	Z2000	0.00	d	d	293.98	134.64
	Hanford total (09/30/95)		8,017.76	318.19	616.47	12,771.03	47,684.95
INEEL[f]	Aqueous liquids/slurries	L1000	3.40	d	d	d	d
	Organic liquids	L2000	6.43	d	d	d	d
INEEL[f]	Homogeneous solids	S3000	0.23	d	d	d	d
(contd.)	Inorganic homogeneous solids	S3100	63.62	d	d	d	d

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
	Organic homogeneous solids	S3200	0.00	d	d	d	d
	Soil/gravel	S4000	9.76	d	d	d	d
	Inorganic debris	S5100	91.82	d	d	d	d
	Organic debris	S5300	244.67	d	d	d	d
	Heterogeneous debris	S5400	88.46	d	d	d	d
	Lab packs	X6000	4.77	d	d	d	d
	Elemental mercury	X7100	0.03	d	d	d	d
	Elemental hazardous metals	X7200	327.43	d	d	d	d
	Reactive metals	X7500	0.25	d	d	d	d
	Immobilized forms	Z1000	5.44	d	d	d	d
	INEEL total (09/30/95)		846.28	d	d	d	d
ITRI	Lab packs (09/30/95)	X6000	0.00	d	d	d	d
KAPL[g]	Organic liquids	L2000	0.22	0.00	0.08	0.70	1.87
	Inorganic homogeneous solids	S3100	0.36	0.06	0.18	1.62	4.32
	Organic homogeneous solids	S3200	0.03	0.12	0.28	2.62	6.72
	Soil/gravel	S4000	0.00	0.00	3.36	30.24	80.64
	Inorganic debris	S5100	0.39	2.52	1.66	14.94	39.84
	Organic debris	S5300	0.46	0.01	1.32	11.92	31.78
	Heterogeneous debris	S5400	0.11	0.06	0.18	1.62	4.32
	Lab packs	X6000	0.02	0.04	0.52	4.68	12.48
	Elemental mercury	X7100	0.03	0.00	0.02	0.14	0.38
	Elemental hazardous metals	X7200	0.13	0.04	0.24	2.16	5.76
	KAPL total (08/08/96)		1.75	2.84	7.84	70.54	188.11
KESS[h]	Organic liquids	L2000	0.00	0.00	0.08	1.22	3.30
	Homogeneous solids	S3000	1.28	0.79	4.50	9.30	12.00
	Inorganic homogeneous solids	S3100	0.32	0.01	0.20	1.70	4.60
	Organic homogeneous solids	S3200	0.00	0.00	0.15	1.40	3.50
	Soil/gravel	S4000	0.02	0.00	0.00	10.00	20.00
	Inorganic debris	S5100	0.94	7.42	2.24	10.66	22.02
	Organic debris	S5300	0.00	0.04	0.12	1.08	2.72
	Heterogeneous debris	S5400	1.02	0.01	0.25	1.60	4.60
	Lab packs	X6000	0.01	0.00	0.26	0.95	2.70
	Elemental mercury	X7100	0.00	0.00	0.00	0.00	0.00
	Elemental hazardous metals	X7200	0.00	0.00	0.16	1.80	4.60
	KESS total (08/08/96)		3.59	8.27	7.96	39.71	80.04
KWIN[i]	Homogeneous solids	S3000	0.00	0.07	0.70	1.30	0.00
	Inorganic homogeneous solids	S3100	0.00	0.07	0.15	0.40	0.00
	Organic homogeneous solids	S3200	0.00	0.00	0.50	1.15	0.00
	Soil/gravel	S4000	0.00	0.00	1.40	2.80	0.00
	Organic debris	S5300	0.00	0.03	0.50	1.00	0.00
KWIN[i] (contd.)	Heterogeneous debris	S5400	0.00	0.00	0.38	0.75	0.00
	Lab packs	X6000	0.00	0.00	0.11	0.21	0.00
	Elemental hazardous metals	X7200	0.25	0.07	2.60	2.41	0.00

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
	KWIN total (08/08/96)		0.25	0.24	6.34	10.02	0.00
LANL	Liquids	L0000	122.64	12.15	19.27	645.96	107.10
	Solids	S0000	413.56	40.93	62.78	1,839.19	360.78
	Unknown/other matrix	U9999	224.96	0.79	1.30	35.46	6.96
	Compressed gases/aerosols	X7700	3.94	0.00	d	0.14	0.03
	LANL total (09/30/95)		765.10	53.87	83.35	2,420.76	474.86
LBNL	Aqueous liquids/slurries	L1000	0.60	0.30	d	d	d
	Organic liquids	L2000	1.29	0.56	d	d	d
	Inorganic homogeneous solids	S3100	1.52	0.05	d	d	d
	Heterogeneous debris	S5400	1.02	0.00	d	d	d
	Lab packs	X6000	1.53	0.00	d	d	d
	Elemental mercury	X7100	0.01	0.00	d	d	d
	Elemental hazardous metals	X7200	0.69	0.13	d	d	d
	LBNL total (09/30/95)		6.67	1.04	d	d	d
LEHR	Elemental hazardous metals (09/30/95)	X7200	1.70	0.00	0.00	0.00	0.00
LLNL	Organic liquids	L2000	95.28	66.66	137.42	1,287.19	2,910.00
	Inorganic homogeneous solids	S3100	281.02	19.93	25.10	225.90	432.00
	Organic homogeneous solids	S3200	1.20	0.00	0.60	5.40	7.20
	Soil/gravel	S4000	16.85	10.23	2.00	18.00	72.00
	Inorganic debris	S5100	15.20	4.07	4.20	37.80	96.00
	Heterogeneous debris	S5400	12.54	4.21	7.00	55.60	120.00
	Lab packs	X6000	6.51	0.22	1.30	11.70	26.40
	Special waste	X7000	4.40	0.01	d	d	d
	Elemental mercury	X7100	0.11	0.09	d	d	d
	Elemental hazardous metals	X7200	59.11	10.28	11.00	99.00	132.00
	Reactive metals	X7500	1.21	0.00	0.20	1.80	1.20
	LLNL total (09/30/95)		493.43	115.70	188.82	1,745.29	3,796.80
Mound	Organic liquids	L2000	1.00	0.00	0.00	0.90	0.00
	Inorganic homogeneous solids	S3100	15.60	0.00	0.00	0.00	0.00
	Organic debris	S5300	0.02	0.00	0.00	0.02	0.00
	Heterogeneous debris	S5400	1.00	0.00	0.00	0.00	0.00
	Unknown/other matrix	U9999	1.00	0.00	0.00	0.00	0.00
	Lab packs	X6000	12.74	0.00	0.00	3.00	0.00
	Elemental mercury	X7100	0.00	0.00	0.00	0.00	0.00
Mound (contd.)	Elemental hazardous metals	X7200	5.64	0.00	0.00	0.65	0.00
	Batteries	X7400	0.00	0.00	0.00	0.79	0.00
	Mound total (09/30/95)		37.00	0.00	0.00	5.36	0.00
MURR	Heterogeneous debris (09/30/95)	S5400	1.40	0.27	d	d	d
NNS	Inorganic homogeneous solids	S3100	0.80	0.19	1.09	9.77	26.06

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
	Inorganic debris	S5100	0.08	0.43	0.37	3.37	8.98
	Organic debris	S5300	0.24	0.04	0.34	3.06	8.15
	NNS total (08/08/96)		1.12	0.66	1.80	16.20	43.20
NTS	Organic liquids	L2000	0.10	d	d	d	d
	Organic homogeneous solids	S3200	0.10	d	d	d	d
	Soil/gravel	S4000	22.55	d	d	d	d
	Lab packs	X6000	0.00	d	d	d	d
	Elemental hazardous metals	X7200	2.10	d	d	4.80	d
	NTS total (09/30/95)		24.85	d	d	4.80	d
ORNL	Liquids	L0000	3.14	e	e	e	e
	Aqueous liquids/slurries	L1000	2,685.34	e	e	e	e
	Organic liquids	L2000	59.85	e	e	e	e
	Solids	S0000	2.64	e	e	e	e
	Inorganic homogeneous solids	S3100	52.13	e	e	e	e
	Organic homogeneous solids	S3200	0.47	e	e	e	e
	Soil/gravel	S4000	4.09	e	e	e	e
	Inorganic debris	S5100	1.89	e	e	e	e
	Organic debris	S5300	1.70	e	e	e	e
	Heterogeneous debris	S5400	2.55	e	e	e	e
	Unknown/other matrix	U9999	0.08	e	e	e	e
	Lab packs	X6000	25.30	e	e	e	e
	Elemental mercury	X7100	0.70	e	e	e	e
	Elemental hazardous metals	X7200	1.39	e	e	e	e
	Beryllium dust	X7300	0.00	e	e	e	e
	Batteries	X7400	1.25	e	e	e	e
	Reactive metals	X7500	0.63	e	e	e	e
	Explosives/propellants	X7600	0.00	e	e	e	e
	Compressed gases/aerosols	X7700	0.00	e	e	e	e
	ORNL total (09/30/96)		2,843.13	e	e	e	e
PANT	Aqueous liquids/slurries	L1000	1.67	0.04	0.15	0.62	0.43
	Organic liquids	L2000	1.37	0.66	0.69	3.66	4.38
	Inorganic homogeneous solids	S3100	27.54	1.78	0.00	0.00	0.00
	Soil/gravel	S4000	0.00	0.00	0.00	229.37	0.00
	Inorganic debris	S5100	41.31	5.64	5.67	29.84	20.05
	Organic debris	S5300	57.65	10.28	9.44	34.83	21.01
PANT (contd.)	Lab packs	X6000	2.03	0.10	0.01	0.06	0.04
	Explosives/propellants	X7600	15.79	9.37	7.04	28.04	17.59
	PANT total (09/30/95)		147.35	27.86	23.01	326.40	63.49
PHNS	Inorganic homogeneous solid	S3100	2.14	0.74	0.25	2.23	5.95
	Debris S5000	0.04	1.13	0.25	2.29	6.10	
	Inorganic debris	S5100	0.90	0.00	0.22	1.94	5.18
	Organic debris	S5300	0.23	0.13	0.14	1.30	3.46
	Elemental hazardous metals	X7200	0.08	0.00	0.03	0.29	0.77

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
	PHNS total (08/08/96)		3.39	2.00	0.89	8.05	21.46
PNS	Inorganic homogeneous solids	S3100	0.22	0.00	0.04	0.36	0.96
	Inorganic debris	S5100	0.45	0.01	0.01	0.12	0.31
	Organic debris	S5300	0.00	0.00	0.01	0.05	0.14
	Heterogeneous debris	S5400	0.00	0.00	0.03	0.27	0.71
	Elemental hazardous metals	X7200	0.14	0.00	0.00	0.01	0.03
	PNS total (12/31/95)		0.81	0.01	0.09	0.81	2.16
PPPL	Aqueous liquids/slurries	L1000	0.00	0.00	0.00	2.00	0.00
	Organic liquids	L2000	0.00	0.30	0.50	4.50	12.00
	Inorganic homogeneous solids	S3100	0.00	0.00	0.00	0.20	0.00
	Inorganic debris	S5100	0.00	0.00	0.20	8.00	0.00
	Elemental hazardous waste	X7200	0.00	0.00	0.20	5.00	0.00
	PPPL total (09/30/95)		0.00	0.30	0.90	19.70	12.00
PSNS	Aqueous liquids/slurries	L1000	0.30	0.00	0.00	0.00	0.00
	Inorganic homogeneous solids	S3100	0.60	1.45	1.81	16.25	43.34
	Organic debris	S5300	5.05	0.00	1.13	10.15	27.07
	Heterogeneous debris	S5400	36.71	0.20	0.93	8.41	22.42
	Elemental hazardous metals	X7200	0.20	0.09	0.67	6.01	16.03
	PSNS total (08/08/96)		42.86	1.74	4.54	40.82	108.86
RFETS	Aqueous liquids/slurries	L1000	1,688.59	d	14.00	3,764.00	1,229.00
	Organic liquids	L2000	167.22	d	d	d	d
	Inorganic homogeneous solids	S3100	15,328.21	d	36.00	9,410.00	3,074.00
	Organic homogeneous solids	S3200	0.42	d	d	d	d
	Soil/gravel	S4000	617.85	d	27.00	7,058.00	2,305.00
	Inorganic debris	S5100	268.88	d	33.00	8,940.00	1,426.52
	Organic debris	S5300	18.82	d	9.00	2,352.00	768.00
	Heterogeneous debris	S5400	1,369.61	d	42.00	10,822.00	3,535.00
	Lab packs	X6000	127.06	d	9.00	2,352.00	768.00
	Elemental hazardous metals	X7200	43.47	d	9.00	2,352.00	768.00
RFETS	Beryllium dust	X7300	5.09	d	d	d	d
(contd.)	Immobilized forms	Z1000	94.81	d	d	d	d
	RFETS total (09/30/96)		19,730.02	d	179.00	47,050.00	13,873.52
SNL/CA	Organic liquids	L2000	d	d	d	3.60	0.40
	Solids	S0000	d	d	d	3.60	0.40
	SNL/CA total		d	d	d	7.20	0.80
SRS[j]	Aqueous liquids/slurries	L1000	150.60	2.10	240.90	2,938.10	d
	Organic liquids	L2000	177.60	0.60	1.00	137.50	d
	Solids	S0000	1.70	0.00	0.00	0.00	d
	Inorganic homogeneous solids	S3100	2,797.46	0.21	40.68	1,057.80	d
	Organic homogeneous solids	S3200	1.80	0.00	0.00	0.00	d
	Soil/gravel	S4000	17.20	0.00	0.00	0.00	d

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
	Debris waste	S5000	739.00	0.00	0.00	0.00	d
	Inorganic debris	S5100	154.35	55.50	31.61	142.96	d
	Organic debris	S5300	17.10	1.98	5.00	44.60	d
	Heterogeneous debris	S5400	3,569.80	1.00	1.70	6.80	d
	Lab packs	X6000	19.00	d	0.90	0.80	d
	Elemental mercury	X7100	0.28	d	0.21	0.82	d
	Elemental hazardous metals	X7200	66.93	d	0.20	0.80	d
	Reactive metals	X7500	0.80	0.00	0.00	0.00	d
	Immobilized forms	Z1000	3.50	0.00	14.00	56.00	d
	SRS total (09/01/96)		7,717.12	61.39	336.20	4,386.18	d
WVDP	Aqueous liquids/slurries	L1000	0.83	2.23	0.00	0.00	0.00
	Organic liquids	L2000	0.00	0.00	0.00	0.00	0.00
	Inorganic homogeneous solids	S3100	0.00	0.00	0.00	0.00	0.00
	Organic debris	S5300	0.00	0.00	3.12	0.00	0.00
	Heterogeneous debris	S5400	25.77	0.00	0.00	0.00	0.00
	WVDP total (09/30/95)		26.60	2.24	3.12	0.00	0.00
Y-12	Liquids	L0000	22.56	e	e	e	e
	Aqueous liquids/slurries	L1000	43.42	e	e	e	e
	Organic liquids	L2000	314.55	e	e	e	e
	Solids S0000	72.00	e	e	e	e	
	Inorganic homogeneous solids	S3100	6,639.00	e	e	e	e
	Organic homogeneous solids	S3200	52.19	e	e	e	e
	Soil/gravel	S4000	9.06	e	e	e	e
	Inorganic debris	S5100	14.17	e	e	e	e
	Organic debris	S5300	66.29	e	e	e	e
	Heterogenous debris	S5400	17.31	e	e	e	e
	Unknown/other matrix	U9999	0.03	e	e	e	e
Y-12	Lab packs	X6000	0.88	e	e	e	e
(contd.)	Elemental mercury	X7100	1.24	e	e	e	e
	Elemental hazardous metals	X7200	2.26	e	e	e	e
	Beryllium dust	X7300	0.00	e	e	e	e
	Batteries	X7400	5.20	e	e	e	e
	Reactive metals	X7500	0.83	e	e	e	e
	Explosives/propellants	X7600	0.00	e	e	e	e
	Compressed gases/aerosols	X7700	1.01	e	e	e	e
	Y-12 total (09/30/96)		7,262.01	e	e	e	e
	Grand total (DOE complex)		71,709.82	607.61	1,463.17	68,942.36	66,377.99

[a]Based on ref. 8. The currentness of these data for the various DOE sites ranges from September 1995 to July 1997.
[b]As described in Table 8.5.
[c]Latest date of site inventory reported (month/day/calendar year).
[d]Information not reported by site.
[e]Generation numbers for ETTP, ORNL, and Y-12 were reported at a rolled up level across the entire Oak Ridge Reservation (ORR). The values were not distributed according to RCRA and non-RCRA (i.e., PCB only), nor were the values distributed according to physical form (i.e., treatability group MPC). The ORR generation values reported were 880.00 m^3 (FY 1996); 1,054.00 m^3 (FY 1997);

Table 8.6 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030

9,505.00 m^3 (FY 1998–2006); and 28,458.00 m^3 (FY 2007–2030).

[f]Includes contributions from the Idaho Naval Reactors Facility.

[g]Knolls Atomic Power Laboratory (KAPL) Schenectady site.

[h]KAPL Kesselring site.

[i]KAPL Windsor site.

[j]Savannah River generation estimates for the 1998–2006 period account for only those from 1998–2001.

Table 8.7. Volume (m^3) inventory and generation of non-RCRA PCB MLLW, by site and physical form[a]

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
ANL–E	Solids S0000	70.00	70.00	0.63	0.63	20.63	
	ANL–E total (07/09/97)[c]		70.00	70.00	0.63	0.63	0.63
BAPL	Organic liquids	L2000	0.01	0.00	0.00	0.00	0.00
	Debris waste	S5000	7.34	0.00	6.76	59.80	24.00
	BAPL total (08/08/96)		7.35	0.00	6.76	59.80	24.00
BNL	Unknown/other matrix	U9999	0.28	0.00	0.40	0.10	0.10
	BNL total (09/30/95)		0.28	0.00	0.40	0.10	0.10
ETTP	Liquids	L0000	18.25	d	d	d	d
	Aqueous liquids/slurries	L1000	2.68	d	d	d	d
	Organic liquids	L2000	22.48	d	d	d	d
	Solids	S0000	214.43	d	d	d	d
	Inorganic homogeneous solids	S3100	16.25	d	d	d	d
	Organic homogeneous solids	S3200	0.18	d	d	d	d
	Soil/gravel	S4000	2,627.51	d	d	d	d
	Inorganic debris	S5100	1,029.94	d	d	d	d
	Organic debris	S5300	20.13	d	d	d	d
	Heterogeneous debris	S5400	46.19	d	d	d	d
	Unknown/other matrix	U9999	2.92	d	d	d	d
	Lab packs	X6000	0.00	d	d	d	d
	ETTP total (09/30/96)		4,000.98	d	d	d	d
Hanford	Solids S0000	0.21	e	e	e	e	
	Inorganic homogeneous solids	S3100	0.21	e	e	e	e
	Organic homogeneous solids	S3200	0.21	e	e	e	e
	Soil/gravel	S4000	29.28	e	e	e	e
	Debris waste	S5000	0.21	e	e	e	e
	Inorganic debris	S5100	32.16	e	e	e	e
	Organic debris	S5300	24.28	e	e	e	e
	Heterogeneous debris	S5400	4.80	e	e	e	e
	Lab packs	X6000	11.11	e	e	e	e
	Hanford total (09/30/95)		102.46	e	e	e	e
KAPL[f]	Debris waste	S5000	0.41	0.41	0.45	4.05	10.80
	Organic debris	S5300	0.40	0.40	0.45	4.05	10.80
	KAPL total (08/08/96)		0.81	0.81	0.90	8.10	21.60
KESS[g]	Solids	S0000	0.00	0.05	0.05	0.45	0.80
	Inorganic homogeneous solids	S3100	0.00	0.60	0.60	5.40	2.00
	Inorganic debris	S5100	0.00	0.80	0.80	1.00	0.50
	KESS total (08/08/96)		0.00	1.45	1.45	6.85	3.30

Table 8.7 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
KWIN[h]	Debris waste	S5000	0.10	0.00	3.90	6.00	0.00
	KWIN total (08/08/96)		0.10	0.00	3.90	6.00	0.00
Mound	Organic debris	S5300	0.40	0.00	0.00	0.00	0.00
	Mound total (09/30/95)		0.40	0.00	0.00	0.00	0.00
NNS	Organic debris	S5300	0.07	0.14	0.62	0.20	0.53
	NNS total (08/08/96)		0.07	0.14	0.62	0.20	0.53
ORNL	Liquids	L0000	0.00	d	d	d	d
	Aqueous liquids/slurries	L1000	0.61	d	d	d	d
	Organic liquids	L2000	2.25	d	d	d	d
	Solids	S0000	0.95	d	d	d	d
	Inorganic homogeneous solids	S3100	0.00	d	d	d	d
	Organic homogeneous solids	S3200	0.00	d	d	d	d
	Soil/gravel	S4000	0.00	d	d	d	d
	Inorganic debris	S5100	0.33	d	d	d	d
	Organic debris	S5300	0.28	d	d	d	d
	Heterogeneous debris	S5400	3.81	d	d	d	d
	Unknown/other matrix	U9999	0.26	d	d	d	d
	Lab packs	X6000	0.05	d	d	d	d
	ORNL total (09/30/96)		8.54	d	d	d	d
PHNS	Inorganic homogeneous solid	S3100	0.00	0.00	0.37	0.11	0.31
	Organic debris	S5300	0.02	0.02	0.37	3.22	8.58
	PHNS total (08/08/96)		0.02	0.02	0.74	3.33	8.88
PSNS	Solids S0000	8.31	0.11	0.11	0.95	2.54	
	Heterogeneous debris	S5400	2.45	0.07	0.07	0.63	1.68
	PSNS total (09/08/96)		10.76	0.18	0.18	1.58	4.22
SRS	Inorganic debris	S5100	2.80	0.20	1.00	e	e
	SRS total (09/01/96)		2.80	0.20	1.00	e	e
Y-12	Liquids	L0000	2.50	d	d	d	d
	Aqueous liquids/slurries	L1000	2.44	d	d	d	d
	Organic liquids	L2000	35.25	d	d	d	d
	Solids S0000	22.58	d	d	d	d	
	Inorganic homogeneous solids	S3100	3.66	d	d	d	d
	Organic homogeneous solids	S3200	0.98	d	d	d	d
	Soil/gravel	S4000	10.58	d	d	d	d
	Inorganic debris	S5100	37.39	d	d	d	d
	Organic debris	S5300	36.96	d	d	d	d

Table 8.7 (continued)

Site	Physical form[b]	MPC code	Current inventory	FY generation			
				Actual 1996	Projections		
					1997	1998–2006	2007–2030
Y-12 (contd.)	Heterogenous debris	S5400	170.76	d	d	d	d
	Unknown/other matrix	U9999	1.82	d	d	d	d
	Lab packs	X6000	0.40	d	d	d	d
	Y-12 total (09/30/96)		325.32	d	d	d	d
	Grand total (DOE complex)		4,529.89	72.80	16.58	86.59	63.26

[a]Based on ref. 8. The currentness of these data for the various DOE sites ranges from September 1995 to July 1997.
[b]As described in Table 8.5.
[c]Latest date of site inventory reported (month/day/calendar year).
[d]Generation numbers for ETTP, ORNL, and Y-12 were reported at a rolled up level across the entire Oak Ridge Reservation (ORR). The values were not distributed according to RCRA and non-RCRA (i.e., PCB only), nor were the values distributed according to physical form (i.e., treatability group MPC). The ORR generation values reported were 880.00 m^3 (FY 1996); 1,054.00 m^3 (FY 1997); 9,505.00 m^3 (FY 1998–2006); and 28,458.00 m^3 (FY 2007–2030).
[e]Information not reported by site.
[f]Knolls Atomic Power Laboratory (KAPL) Schenectady site.
[g]KAPL Kesselring site.
[h]KAPL Windsor site.

Table 8.8. Total volume (m^3) inventory and generation of DOE RCRA and RCRA PCB MLLW, by physical form[a]

MPC name	MPC code	Current inventory	FY generation			
			Actual 1996	FY projections		
				1997	1998–2006	2007–2030
Liquids	L0000	148.34	12.15	19.27	545.96	107.10
Aqueous liquids/slurries	L1000	4,903.52	4.67	255.18	6,705.85	1,232.45
Organic liquids	L2000	1,311.53	69.36	140.06	1,440.56	2,935.09
Solids	S0000	490.52	40.93	62.78	1,842.79	361.18
Homogeneous solids	S3000	21.51	0.86	9.77	54.98	59.89
Inorganic homogeneous solids	S3100	49,991.40	89.98	148.60	11,279.31	7,999.89
Organic homogeneous solids	S3200	501.68	0.33	1.87	13.49	25.48
Soil/gravel	S4000	1,459.34	21.43	63.36	7,737.51	2,638.25
Debris waste	S5000	784.43	24.32	0.25	2.29	6.10
Inorganic debris	S5100	1,353.16	105.93	218.95	16,671.29	36,146.50
Organic debris	S5300	2,257.89	67.10	96.96	3,238.62	2,834.41
Heterogeneous debris	S5400	6,146.02	110.56	325.31	13,672.19	8,702.63
Unknown/other matrix	U9999	331.56	0.79	1.30	35.46	6.96
Lab packs	X6000	527.13	13.57	39.82	2,558.53	923.98
Special waste	X7000	5.70	1.83			
Elemental mercury	X7100	8.11	0.51	0.49	1.39	1.07
Elemental hazardous metals	X7200	870.41	33.52	56.52	2,713.79	1,126.41
Beryllium dust	X7300	5.25				
Batteries	X7400	26.05	0.42	1.29	3.95	27.04
Reactive metals	X7500	394.63	0.00	0.20	1.80	1.20
Explosives/propellants	X7600	15.79	9.37	7.19	30.94	40.07
Compressed gases/aerosols	X7700	9.89	0.00		0.14	0.03
Immobilized forms	Z1000	145.75	0.00	14.00	97.53	1,067.63
Decontaminated solids	Z2000	0.00			293.98	134.64
Total		71,709.82	607.61	1,463.17	68,942.36	66,377.99

[a]Based on ref. 8.

Table 8.9. Total volume (m^3) inventory and generation of DOE non-RCRA PCB MLLW, by physical form[a]

MPC name	MPC code	Current inventory	FY generation			
			Actual 1996	FY projections		
				1997	1998–2006	2007–2030
Liquids	L0000	20.75				
Aqueous liquids/slurries	L1000	5.73				
Organic liquids	L2000	59.99	0.00	0.00	0.00	0.00
Solids	S0000	316.48	70.16	0.79	2.03	3.97
Inorganic homogeneous solids	S3100	20.12	0.60	0.97	5.51	2.31
Organic homogeneous solids	S3200	1.37				
Soil/gravel	S4000	2,667.38				
Debris waste	S5000	8.06	0.41	11.11	69.85	34.80
Inorganic debris	S5100	1,102.63	1.00	1.80	1.00	0.50
Organic debris	S5300	82.54	0.56	1.44	7.46	19.90
Heterogeneous debris	S5400	228.01	0.07	0.07	0.63	1.68
Unknown/other matrix	U9999	5.28	0.00	0.40	0.10	0.10
Lab packs	X6000	11.55				
Total		4,529.89	72.80	16.58	86.59	63.26

[a]Based on ref. 8.

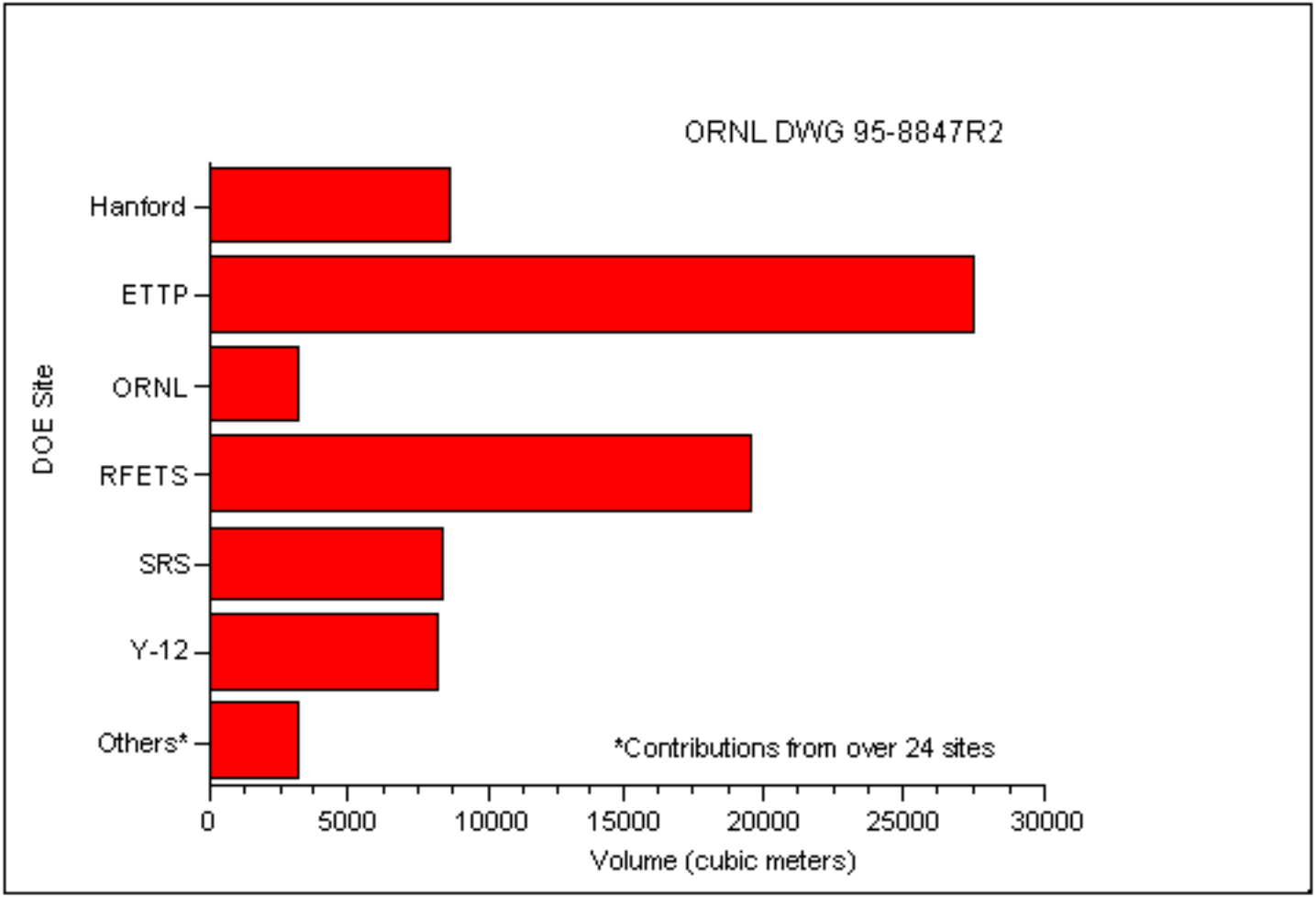

Fig. 8.1. Volume inventory of DOE MLLW (RCRA and TSCA) by site.

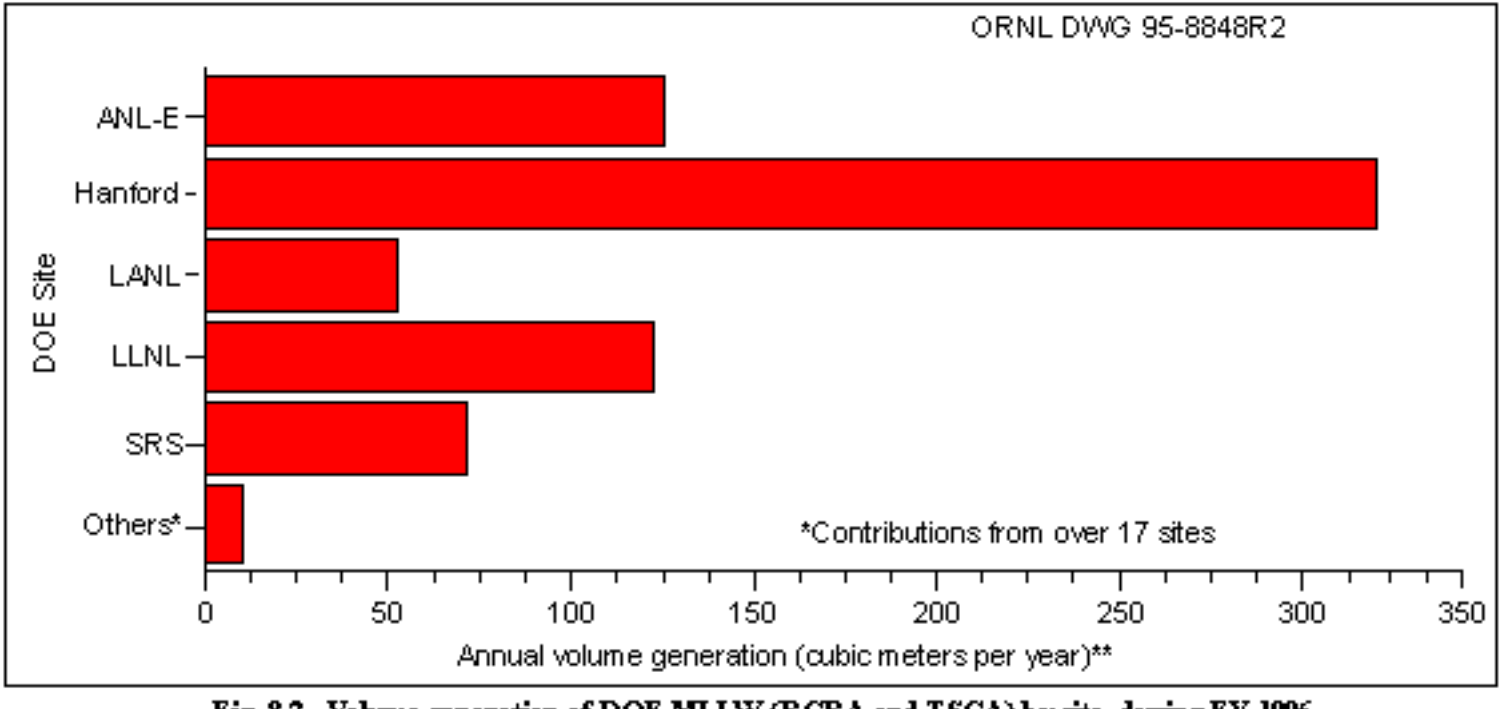

Fig. 8.2. Volume generation of DOE MLLW (RCRA and TSCA) by site, during FY 1996.